Harm Reduction: Australia as a Case Study

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Abstract. *This paper explicates the term, "harm reduction"; demonstrates that harm reduction has a long tradition; and uses one country, Australia, as a case study. Harm reduction can be understood as "policies and programs which are designed to reduce the adverse consequences of mood altering substances without necessarily reducing their consumption"; it is consistent with the best traditions of both medicine and public health. Although it is difficult to interpret trends in mortality from alcohol, tobacco, and illicit drugs to determine whether harm reduction in Australia "worked", the effectiveness of harm-reduction policies and programs in controlling HIV among injecting drug users (IDUs) seems extremely strong and suggests that benefits of harm-reduction programs for other drugs will become apparent in time.*

In most developed and an increasing number of developing countries, illicit drug use generates considerable community anxiety. In Australia, drug use is mentioned consistently in community surveys as being among the two or three most troublesome social issues. This anxiety stems from concerns about the loss of a considerable number of lives of young people, spread of communicable infections (especially HIV and, more recently, hepatitis C), the social dysfunction that commonly accompanies injecting drug use, and the economic costs associated with drug use and community responses to drug use. Most of the anxiety is focused on illicit drugs, although alcohol is responsible for many more deaths, both overall and in young people.

In late 1984, Australians were astonished to learn suddenly that the Prime Minister's own daughter was a "heroin addict" with, at best, only a few years to live. Feverish activity followed. On April 2, 1985, the Prime Minister and Premiers—equivalent to the

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President and governors in the United States—met to discuss the subject of illicit drugs. They agreed on a new strategy that included a commitment to a national policy of "harm minimization", now generally referred to as "harm reduction", and an approach to funding a range of new initiatives to improve data collection, alcohol and drug treatment, training, research, and community education. This program was called the National Campaign Against Drug Abuse (NCADA) and is now referred to by a less militaristic title, the "National Drug Strategy." These days, policymakers in Australia often refer to national drug policy as the "Balanced Approach," referring to a presumed better balance of supply reduction, demand reduction and harm reduction as well as a presumed better balance of responses to the problems resulting from illicit and licit drugs. A few years ago, Canadian national drug policy was also declared to be "harm reduction." What does this term mean?

A procession of state and federal ministers and senior policymakers in Australia have, on numerous occasions, publicly declared their unqualified support for harm reduction. Harm reduction is supported across the political spectrum in Australia. It is not and never has been regarded as controversial, although needle exchanges were controversial around the time of their introduction in the late 1980s. Harm reduction has never been defined in any Australian government publication, nor has it been defined by any accepted international group.

Definition of Harm Reduction

The most logical definition of the term is "those policies and programs which are designed to reduce the adverse consequences of mood altering substances without necessarily reducing their consumption."[1]

The two most frequently quoted examples of harm reduction are sterile needle and syringe availability programs, and methadone treatment. Needle programs have now been officially accepted and implemented in almost all developed and some

developing countries as one of the most critical components in a successful strategy to control the spread of HIV infection in IDUs. There is now abundant evidence to support the effectiveness of needle availability programs in controlling HIV and to confirm that untoward effects are minimal.[2–4] In the United States, as was feared 5 years ago, "political considerations are imposing a standard of proof on evaluative studies of needle exchanges . . . which is far higher than that required for most interventions and is probably unattainable in practice."[5] Unrealistically rigorous standards of proof were also demanded of methadone treatment. Eventually, these were provided. Meanwhile, the standard of proof required for abstinence-based treatments and supply-reduction interventions has been and continues to be anything but rigorous.

Methadone treatment programs, first pioneered in New York just over 30 years ago, are among the most intensively researched interventions in medicine. There can be little doubt that methadone attracts and retains far more heroin injectors than all other treatment modalities together. Compelling evidence demonstrates that methadone treatment is safe, has few side effects, and reduces heroin use, mortality, criminality, and the spread of HIV infection.[6]

These two interventions have in common the reduction of the serious sequelae of heroin injecting, without *necessarily* reducing drug use. Sterile needle availability does nothing—at least in the short term—to reduce heroin injecting, although it is common to see IDUs attracted to needle exchanges soon ask for help to cut down or eliminate their drug use. Methadone treatment often reduces heroin injecting, even in the short term. Methadone treatment fits the definition of harm reduction because consumption of a mood-altering drug continues, albeit methadone has minimal psychoactive properties compared to heroin.

Some have argued that law enforcement efforts, such as incarcerating drug users, self-evidently prevents IDUs from harming themselves and members of the general community, and that these measures should, therefore, properly be regarded as exam-

ples of harm reduction. This is quite a common source of confusion. The temptation to count the numbers of angels who can fit on the end of a pin must be sternly resisted, but it is also important that conceptual clarity be preserved, especially in such an emotion-charged context. Maintaining a distinction between "reducing harm"—which could include supply, demand, and harm reduction—and "harm reduction" itself seems the easiest and most logical way of ensuring conceptual clarity.

When psychoactive drug use is being considered, dimensional characteristics are all too often regarded categorically. We must remember that real life is usually very messy. In a categorical sense, methadone treatment is simply a process of exchanging one mood-altering and addicting drug for another. But in a dimensional sense, methadone treatment involves swapping a long-acting, orally well-absorbed legal drug for a short-acting, injectable, illegal drug.

The case for regarding methadone treatment as a harm-reduction intervention has already been argued. But methadone treatment results in substantial reduction of heroin use and can, therefore, also be considered legitimately a demand-reduction intervention. If, as a result of methadone treatment, a sizeable number of heroin wholesale and retail distributors suspend their activities, this intervention can also be seen as a supply-reduction measure.

Some have argued that harm reduction is simply a device for the surreptitious introduction of decriminalization or legalization of illicit drugs. However, many who support harm reduction remain vehemently opposed to decriminalization or legalization. Others argue that, whatever the merits of legalization or decriminalization, such policy changes are decades away. In the meantime, the millions who could benefit from the introduction of harm-reduction programs today are denied them because of the distractions of the debate about legalization.

Is Harm Reduction Novel and Unique?

Harm reduction often is presented as a new invention, but the record suggests otherwise. The World Health Organization (WHO) must, of necessity, balance the views of the family of nations and, therefore, avoid partisan or radical positions. The most recent WHO Expert Committee on Drug Dependence noted[7] that the basic focus of the 20th meeting, which met in 1974, was "actions taken in an effort to prevent or reduce the seriousness of the individual and social problems associated with the use of various types of dependence producing drugs." The idea, "making the world a safe place for drunks," has a long history. It implies a recognition of "things which cannot be changed" and the pragmatic adoption of strategies that reduce problems associated with irreducible levels of intoxication. Again, this is the essence of harm reduction. In ancient China, a similar philosophy led to the introduction of barriers around canals to prevent intoxicated pedestrians from falling into the water and drowning.

Harm reduction is also consistent with the best traditions of medicine and public health. Patients with incipient gangrene of a foot, caused by vascular disease, have always been and continue to be advised by their treating doctors to accept amputation because, for most patients, life with one and a half limbs is preferable to death with both limbs intact. Patients who acquire sexually transmissible diseases are certainly counseled on the connection between sexual acts and infections. However, few clinicians would expect more than a small minority to adopt indefinite chastity. Doctors employed by the military have traditionally been the most pragmatic, realistically dispensing barrier contraceptives and antibiotics in roughly equal proportions. Nicotine patches are the most recent example of a pragmatic attitude being taken to the power of gratifying forces and maintaining a commitment to reducing the harmful consequences of smoking. Harm reduction is, therefore, nothing more than another application of the well-accepted public health precept of not letting the best be the enemy of the good; in

TABLE I
ALCOHOL-CAUSED DEATH RATE PER 100,000 POPULATION, 1981 TO 1992[8,9]

Year	Death Rate
1981	46.9
1982	48.4
1983	42.0
1984	41.1
1985	42.5
1986	39.9
1987	40.7
1988	40.9
1989	40.4
1990	38.7
1991	37.6
1992	37.6

other words, of accepting and delivering achievable goals rather than failing to deliver unachievable goals.

Did Harm Reduction "Work" in Australia?

Harm reduction has been Australia's official drug policy since 1985. Ideally, its effectiveness should be measured against outcome criteria such as alcohol- and drug-related mortality. Evaluation against even such outcomes, however, turns out to be very complicated.

Alcohol-related deaths in Australia declined 20%, from 46.9 to 37.6 per 100,000 per annum, between 1981 and 1992 (Table I).[8,9] The most likely explanations for this important public health gain was a reduction in per capita alcohol consumption in Australia and the introduction of a range of interventions to reduce alcohol-related road crash deaths, of which the most important was undoubtedly random breath testing. Between 1980 to 1981 and 1990 to 1991, per capita alcohol consumption in Australia declined 18.5% (9.7 litres to 7.9 litres absolute alcohol per person per annum).[9] There was no official government policy to intentionally reduce per capita alcohol consumption (although this had been officially suggested by an advisory body at about the same time that alcohol consumption reached its apogee). Declining alcohol consumption has been observed in most developed countries

TABLE II
TOBACCO-CAUSED DEATH RATE PER 100,000 POPULATION, 1981 TO 1990[8,9]

Year	Death Rate
1981	112.4
1982	117.0
1983	113.1
1984	117.7
1985	117.5
1986	111.4
1987	111.7
1988	112.7
1989	113.9
1990	106.0

during this period and is poorly understood. Harm reduction is generally not regarded as a contributor of reduced alcohol-related deaths in Australia during the last decade. But new initiatives likely to yield important benefits in the future—such as increasing emphasis on the role of law enforcement in reducing alcohol-related violence—were unquestionably stimulated by a commitment to harm reduction, inasmuch as alcohol-related violence in Australia is the most commonly experienced adverse consequence of addiction to that drug.

The case of tobacco is even more problematic (Table II). Tobacco-related deaths declined 6% (112.4 to 106.0 per 100,00 per year) between 1981 and 1990.[8] However, tobacco-related deaths lag several years behind changes in tobacco consumption. Therefore, attribution of benefit is difficult. Also, tobacco consumption has been declining in Australia for many years in response to a broad range of measures introduced long before the adoption of harm reduction. The introduction of policies to reduce tars can, in retrospect, be seen as an example of harm reduction, although this was never explicitly considered a form of harm reduction at the time. Tars are responsible for most of the harmful effects of tobacco smoking; the reduction of tar intake decreases the baleful effects of smoking without interfering with consumption of the major psychoactive ingredient of tobacco. It is more complicated than this because tar and nicotine reductions were often intro-

TABLE III
ILLICIT DRUG-CAUSED DEATH RATE PER 100,000 POPULATION 1981 TO 1992[8,9]

Year	Death Rate
1981	3.6
1982	3.9
1983	4.2
1984	4.0
1985	4.6
1986	3.8
1987	4.4
1988	5.8
1989	4.2
1990	4.8
1991	2.3
1992	4.6

duced at the same time. Also, smokers compensate for at least some of the reductions in tar and nicotine concentration.

The 28% increase in illicit drug-related deaths in Australia, (Table III) from 3.6 to 4.6 per 100,000 during the period 1981 to 1992,[8,9] might be regarded by some as persuasive evidence that harm reduction "does not work." This interpretation should be rejected for several reasons. Illicit drug-related deaths have been increasing for some time—long before the introduction of harm reduction. The reason(s) for this increase is not apparent but may include increasing numbers of drug users, increasing hazards of drug use, statistical aberrations, or some combination of those factors.

The best evidence that harm reduction has worked in Australia is the consistent low prevalence of HIV infection in surveys of IDUs.[10] There can be little doubt that the course of the epidemic has been changed in Australia; the country's ranking in the table of cases of AIDS per capita among developed countries has been falling slowly.[11] Harm reduction was adopted before the magnitude of consequences of an uncontrolled epidemic were fully appreciated, but the policy of harm reduction was usually invoked as the rationale for implementation of HIV prevention measures for IDUs. Determining whether harm-reduction policies and programs were responsible for the apparent change in the course of the epidemic is complicated by insuperable methodological prob-

lems, including the almost simultaneous introduction of prevention measures, and research difficulties that arise because of the illegal and highly stigmatized nature of risk practices. However, there is a great deal of circumstantial evidence to indicate that the harm-reduction programs did result in control of the epidemic.[10] Almost all countries that have demonstrated control of HIV infection in IDU populations have explicitly adopted harm reduction.

Among Australian policymakers and clinicians in both the drug and HIV/AIDS areas, there is overwhelming support for harm-reduction policies and programs because they have been thought to be responsible for the stable low prevalence of HIV infection among IDUs. Similar views are found in the community. Two studies have examined attitudes to harm-reduction programs including needle availability programs and methadone treatment. Both were supported by at least 80% of those surveyed, with even higher levels of support for some questions.

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